

Appl. No. 10/657,273
Amendment dated: January 31, 2007
Reply to OA of: January 26, 2006

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-6(canceled).

7(currently amended). A method for ~~designing~~ preparing an alloy, which comprises:

a) determining the effective charge number z of said alloy, wherein z is between -1 and 1;

b) selecting I types of constituent metals wherein I is an integer greater than 1; and

c) calculating the mole fraction x_i of each constituent metal according to the following formula:

$$z = \sum_i x_i z_i$$

$$x_1 + x_2 + \dots + x_i = 1$$

wherein z_i is the effective charge number of the i^{th} constituent metal,

d) mixing said I types of constituent metals according to the mole fractions of Step c) and melting the mixture to form an alloy[[]], provided that the constituent metals are selected from the group consisting of Co, Ni, Al, Mg and Zn, and further provided that the alloy is not a binary alloy of Co and Ni.

8(new). The method of claim 7 wherein the formed alloy is composed of 0.0769 mole fraction of Al and 0.9231 mole fraction of Mg.

9(new). The method of claim 7 wherein the formed alloy is composed of 0.1177 mole fraction of Ag and 0.8823 mole fraction of Mg.

10(new). The method of claim 7 wherein I is 2 or 3.